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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,348	11/14/2003	John Apostolopoulos	200209976-1	2739

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FORT COLLINS, CO 80527-2400

EXAMINER

LEMMA, SAMSON B

ART UNIT	PAPER NUMBER
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2132

MAIL DATE	DELIVERY MODE
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10/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/617,348

Applicant(s)

APOSTOLOPOULOS, JOHN

Examiner

Samson B. Lemma

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10, 12-14, 17-25, 29-34 and 36-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10, 12-14, 17-25, 29-34 and 36-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The request filed September 18, 2007 for a request for continued examination (RCE) under 37 CFR 1.114 based on patent application 10/617,348 is acceptable and an RCE has been established. Every Independent **claims 1, 20, and 34** has been amended previously. Claims 7-9, 11, 15-16, 26-28, 35 and 45 have been canceled previously. No new claims are added. Thus **claims 1-6, 10, 12-14, 17-25, 29-34 and 36-44** are pending/examined.

Response to Arguments

2. Applicant's remarks/arguments filed on September 18, 2007, regarding the 35 USC § 103 claim rejection set forth to the pending claims have been fully considered but they are not persuasive.

Regarding 35 U.S.C. §103 rejection given to claims **1-6, 10, 12-14, 17-25, 29-34 and 36-44**, Applicant's argued that the limitation recited as "...wherein said segment comprises data coded in a plurality of frames..." is not disclosed by the reference/s on the record namely by "Wee" and "Qiu".

Applicant's representative wrote the following in support of the above argument.

"Applicant understands Wee to describe a method of secure scalable streaming (SSS) for wireless networks (Abstract). With reference to Section 4.1 and Figure 4, Wee recites that "the video frame is segmented into tiles" (Section 4.1).

Accordingly, Wee discloses that segments include portions of video frames. In other words, each segment includes a fraction of a video frame.

In contrast, the claimed embodiments recite "wherein said segment comprises data coded in a plurality of frames". Accordingly, Applicant submits that Wee does

Art Unit: 2132

not teach, describe or suggest the claimed embodiment. Moreover, Applicant respectfully submits that by disclosing that a "video frame is segmented", Wee teaches away from "wherein said segment comprises data coded in a plurality of frames" as claimed

Applicant notes the assertion in the instant Office Action that Wee discloses "wherein said segment comprises data coded in a plurality of frames" by citing [page 3, 1st column, 2n~ paragraph and see figure 4, SSS coding] (As it is shown on figure 4, on the first box, 'the video frames', which implies plurality of claims are segmented into tiles/these implies [sic] that each tiles are comprise of plurality of frames [sic]. Furthermore, As shown on figure 4, ref. Second box, these tiles are coded. Therefore, these meets the limitation recited as wherein said segment/tiles comprises data coded in a plurality of frames" (instant Office Action, paragraph 8, page 4, lines 5-10).

However, Applicant submits that this interpretation is not supported by the teachings of Wee. For instance, with reference to Figure 4 of Wee, an SSS coder shown in the lower portion of Figure 4 while examples of the input and output to the described Operations of the SSS coder are shown in the upper portion of Figure 4. As shown in the upper portion representing the output of "Segment video frames into tiles" is a single frame segmented into four tiles. Applicant understands Wee to describe that each frame of a plurality of frames are segmented into tiles.

Applicant respectfully submits that in order to provide scalability of video frames, Wee discloses that a "video frame is segmented into tiles" (Section 4.1), and that the interpretation presented in the Office Action is not supported by the teachings of Wee."

Examiner disagrees with the above argument.

Examiner would point out that what is cited by the examiner is the lower portion of figure 4 and if the lower portion of the figure 4 is concerned examiner interpretation of figure 4 is correct.

For instance as it is shown on the lower portion of figure 4, on the first box, "the video frames", which implies plurality of frames are segmented into tiles. It is therefore correct that this implies the fact that each tiles are comprises of plurality of frames. Furthermore, as shown on figure 4, ref. Second box, these tiles are coded. Therefore these meet the limitation recited as "wherein said segment/tiles comprises data coded in a plurality of frames".

Therefore contrary to the applicant's argument what is cited by the examiner is supported by the reference on the record.

In order to show how each and every limitation of the independent claims are disclosed by the combination of the Wee and Qiu, the examiner would show the following. For instance referring to the **independent claims 1, 20 and 34 Wee**,

the primary reference on the record, discloses a method for providing transcodability to media data in a network, [Abstract] comprising:

separating an amount of data into a segment [first Video frame is segmented into tiles]; and

combining said segment and a transcoder readable payload header [page 3, 1st column, 2nd paragraph] (see, unencrypted header/ transcoder readable payload header) **into a data packet payload**, [combining the unencrypted header/transcoder readable payload header with the progressively encrypted scalable video data] **wherein said segment comprises data coded in a**

plurality of frames [page 3, 1st column, 2nd paragraph and see figure 4, SSS coding](As it is shown on figure 4, on the first box, "the video frames", which implies plurality of frames are segmented into tiles/these implies that each tiles

Art Unit: 2132

are comprise of plurality of frames. Furthermore, As shown on figure 4, ref. Second box, these tiles are coded. Therefore these meets the limitation recited as wherein said segment/tiles comprises data coded in a plurality of frames)

Wee does not explicitly discloses the limitation recited as “transcoder readable payload header comprises information associating a relative importance with each of said frames”.

However, in the same field of endeavor **Qiu, the secondary reference on the record**, discloses network packet header/ transcoder readable payload header layout comprises of information associating a relative packet priority with each packets/frames. *[See for instance, page 3, Table 1 and the explanation underneath furthermore see also second page third paragraph priority level]*

However, regarding, the 35 U.S.C. § 112, second paragraph rejection, set forth in the pervious office action, applicant’s representative argued that the limitation recited as “relative importance”, in view of the specification, is either “a dependency” or “relative priority”.

In view of the above understanding, the rejection is withdrawn and it has been found that examiner’s interpretation of the limitation recited as “relative importance” as “relative priority” is correct.

Thus, the limitation recited in the respective independent claims is something, which is already disclosed, by the combination of the reference/s on the record. Therefore the rejection is maintained till applicant further amend at least the independent claims and successfully overcome the ground of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner

4. **Claims 1-6, 10, 12-14, 17-25, 29-34 and 36-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Susie J. Wee** (hereinafter referred as **Wee**)(Reference U) (Publication date: May 2001, IEEE) in view of **Ruibiao Qiu**. (hereinafter referred as **Qiu**) (An article Published on November 6, 2001, by Washington University, Department of Computer Science) (See Reference U)

5. **As per independent claims 1, 20 and 34 Wee discloses, a method for providing transcodability to media data in a network**, [Abstract] comprising: **separating an amount of data into a segment** [first Video frame is segmented into tiles]; and

Art Unit: 2132

combining said segment and a transcoder readable payload header [page 3, 1st column, 2nd paragraph] (see, unencrypted header/ transcoder readable payload header] **into a data packet payload**, [combining the unencrypted header/transcoder readable payload header with the progressively encrypted scalable video data] **wherein said segment comprises data coded in a plurality of frames** [page 3, 1st column, 2nd paragraph and see figure 4, SSS coding]/(As it is shown on figure 4, on the first box, "the video frames", which implies plurality of frames are segmented into tiles/these implies that each tiles are comprise of plurality of frames. Furthermore, As shown on figure 4, ref. Second box, these tiles are coded. Therefore these meets the limitation recited as wherein said segment/tiles comprises data coded in a plurality of frames)

Wee does not explicitly discloses the limitation recited as "transcoder readable payload header comprises information associating a relative importance with each of said frames".

However, in the same field of endeavor **Qiu**, discloses network packet header/ transcoder readable payload header layout comprises of information associating a relative packet priority with each packets/frames. [See for instance, page 3, Table 1 and the explanation underneath furthermore see also second page third paragraph priority level]

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to combine the features of network packet header/ transcoder readable payload header layout comprises of information associating a relative packet priority with each packets/frames as per teachings of **Qiu** into the method as taught by **Wee** for the purpose restoring the video sequences/strams with reasonable quality despite the packet drops in the code stream.[See for instance *Qiu* on the first page introduction, second paragraph, last sentence.]

Art Unit: 2132

6. **As per claims 2, 21-22 and 36 the combination of Wee and Qiu discloses, a method as applied to claims above. Furthermore, Wee discloses the method**

wherein said frame is

coded using a method comprising I, P and B-frames. [Coding the frame with the method comprising I, P and B-frames is inherently included as shown in figure 1D, applicant submitted prior art)

7. **As per claims 3 and 37 the combination of Wee and Qiu discloses, a method as applied to claims above. Furthermore, Wee discloses the method** wherein said frame is coded using an MPEG coding scheme. [page 2, 1st column, last paragraph]

8. **As per claims 4-6, 25 and 39-40 the combination of Wee and Qiu discloses, a method as applied to claims above. Furthermore, Wee discloses the method** further comprising

encrypting said segment. [page 3, 1st column, 2nd paragraph]

9. **As per claim 10 the combination of Wee and Qiu discloses, a method as applied to claims above. Furthermore, Wee discloses the method** wherein said data packet payload is combined in a data packet with a packet header independent of said transcoder readable Payload header. [page 3, 1st column, 2nd paragraph]

10. **As per claims 29, 38 and 41-42 the combination of Wee and Qiu discloses, a method as applied to claims above. Furthermore, Wee discloses the method wherein said transcoder readable payload header enables transcoding of said packets while said payload remains encrypted.** [See 5.1, "Scalable Coding-Packetization"] *(The scalable video coding and packetization modules of the SSS coder were jointly designed to enable downstream transcoding operations to be performed by simple packet truncation. SSS coding is similar to bitstream scalable video coding, but it further partitions the video frames into scalable packets that correspond to*

Art Unit: 2132

*predetermined regions or tiles in the video sequence. The JPEG 2000 image compression standard has many of these characteristics of independently coded tiles and scalability within the tile. We build upon these concepts by extending this level of scalability to video frames and by combining it with the packetization process; furthermore, we jointly design this smart packetization **with the encryption process.**)*

11. **As per claim 12-14, 30-32 the combination of Wee and Qiu_ discloses, a method as applied to claims above. Furthermore, Wee discloses the method** wherein said information comprises truncation points. [Page 3, read 4.2, "SSS Transcoding", "truncating"]
12. **As per claim 17-19, 23-24, 33, 43-44 the combination of Wee and Qiu discloses, a method as applied to claims above. Furthermore, Wee discloses the method** further comprising forwarding said data packet. [Abstract and page 1-4, column 2]

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is 571-272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-873-8300.

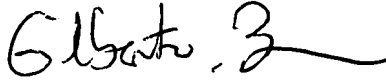
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2132

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAMSON LEMMA

**S.L.
09/23/2007**


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